MEELS - Municipalities and Energy Efficiency in a Liberalised System -

Guidelines for Municipalities: Adapting to New Roles in a Liberalised Market

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INTRODUCTION

Local authorities fulfil their functions in the energy sphere via a number of roles:

- As a consumer of energy,
- As a producer of energy,
- As a distributor of energy,
- As a trader of energy,
- As a regulator, planner and policy maker regarding energy using activities,
- As an awareness raiser of the issues relating to energy use and
- As a provider of incentives to improve energy performance.

There are impacts of liberalisation on each of these roles which are detailed in Reports 1 ("The roles of Municipalities in the Energy Sector") and 2 ("General Background to the Energy Sector in the Participant Countries and how it has been affected by Liberalisation") but not all aspects are equally affected. The most significant impacts concern:

- Energy purchase where the local authority is directly obliged to get competitive offers,
- Energy production and trading where new opportunities are opened up by Third Party Access to the transport and distribution networks,
- Energy saving where reduced prices may imply reduced incentive to save energy,
- Energy advice and incentives, in which the utility is now uninterested or only half heartedly interested, in order to meet regulator imposed obligations. Someone has to pick up the baton and that is usually the local authority,
- Operational methods the local authority, like the utility, is becoming more business oriented. Utilities have become businesses in their own right, while local authorities hive off "business" or competitive elements of their service to specialists who can do it more efficiently.

Local authorities can however improve good practice in all these fields. In most, liberalisation has not actually changed what they do, only the degree of attention that should be given to it. Only in those areas where trading is involved are new skills necessary, for instance in purchasing energy, in transporting one's own energy and in trading energy.

These issues can most easily be considered by considering a series of questions related to the local authority's roles. They pose questions for which solutions can be found in the best practice case studies presented in Report 3 entitled "Case studies of Good Practice in Rising to the Challenge of Liberalisation".

Lesson 1

Local authorities can promote energy efficiency.

Even if the liberalisation of energy markets seems to make it more difficult, it also creates opportunities for the committed local authority.

IMPROVING PERFORMANCE AS AN ENERGY CONSUMER

All local authorities consume energy. In the past the only way local authorities could reduce their bill was to save energy. The cost of energy was determined at national level and there was no choice of supplier. Now the local authority as client can choose, and because it can choose, the regulations concerning public purchases means that they will *have to* choose. That has major implications for local authorities both in terms of how they purchase, what they purchase and the impact on investment in energy saving. It also provides real new opportunities to ensure that the local authority's energy supply is sustainable.

How can we purchase electricity and gas of a quality and price that suits our needs?

Liberalisation means that you can shop around, and this is a dramatic change for the customer. But it also means that the local authority is subject to the rules of the market.

There are some basic rules of commerce. A basic premise of purchasing is that the more you buy the better deal you get and the greater leverage you can impose on the market. If you wish to purchase energy of a certain quality or from a particular source, everything is possible in an open market. The customer is king. But his kingly power also depends on how much he is willing to spend and how open the market truly is.

Purchasing energy imposes certain obligations. Firstly one needs to know how much energy one is using. This is a major resource for promoting future action but to obtain this information itself requires resources. Secondly one needs to know the quality one is searching. With gas this is straightforward since natural gas meets certain minimum standards. With electricity it is more complicated. It could be "dirty" energy from fossil fuel, energy from nuclear plants with implications for waste disposal and public acceptability, "light green" energy from existing hydro, cogeneration and landfill gas and "deep green" energy from new renewable capacity. So purchasing can encourage more efficient production of energy if this is specified in the call.

The local authority can also act as an intermediary and get these advantages for its electors as well (see Massachusetts). It could impose an obligation to provide energy services or savings, however experience tends to show that purchasing is made on price and free give-aways don't cut much ice with professional purchasing officers. To get the best price, you need to get the largest purchasing block possible. Hence energy saving can actually be seen as a hindrance to getting the best price.

There are several ways to get a good price. One of the key methods is to work in consortium. British local authorities have purchased in consortium for many years and this has offered many advantages in terms of price. It has also enabled large block bids to be put out for green electricity. In Sweden too there is a tradition of purchasing in consortium via a local authority owned company. However where the markets are still controlled by powerful interests even though nominally open (Germany and Austria for example) there has apparently been little development to date of joint calls for tender. It could well be that

a suitable cooperative structure (e.g an aggregation unit as in the USA or a consortium) might be able to exert competitive pressure on the market and open it up a little.

It is also essential to have detailed knowledge of your energy use if you are to go out to tender. Many local authorities have never examined this and the availability of such information is a key to developing energy efficiency activities in buildings. The introduction of energy monitoring systems is an essential first stage for tendering and also for introducing energy efficiency investments.

The same applies to street lighting. Indeed in the UK, where street lighting is not metered, the availability of a good database is essential to ensure that one actually pays for what one gets. But at the same time one needs a good database if one is going to effectively plan street lighting and plan energy saving investments. So the need to go out to tender can provide the tools, if not necessarily the incentive, to undertake energy saving investments.

With energy monitoring and when setting up a database, there are also advantages of scale. This is precisely the type of activity which is rarely done by small local authorities which have other matters to worry about and few or no specialist staff. It is an area where working in cooperation has advantages and can allow one to set up joint systems for purchasing, energy efficiency and building and street lighting management. However each of these activities are separate activities and one should not expect purchasing officers to act to promote energy efficiency or energy efficiency officers to be good at competitive purchasing. What is useful however is that the information provided for one is a feedstock for the other.

There is scope for developing these ideas by establishing cooperative organisations to carry out a range of functions for an area or group of local authorities that would otherwise not have the resources to carry these out. These could include energy monitoring, purchasing, and promoting energy efficiency in their own stock. Energy agencies could fulfil this role, but it also requires that the participant authorities actually realize that the gathering of data is a worthwhile investment. There is no certainty that this will be the case - indeed public authorities do not have a good track record in this regard. Come the first financial crisis and such "investment" is usually the first to be cut back. It really does need support from national and regional structures to promote such activity among local authorities and to give it specific legal support. The consortia of British local authorities were introduced as a result of legislation that specifically gives local authorities the right to set them up to fulfil their functions. Syndicats intercommunaux in France have similar status. Both could be adapted to meet this particular need with sufficient support from central government.

Lesson 2 Knowledge is a key asset.

When negotiating to purchase energy, carry out energy efficiency improvements or protect the local citizens, it is vital to have sufficient knowledge. Monitoring is vital. It is essential for local authorities to cooperate in delivering energy efficiency.

Lesson 3

The economies of scale work well in a liberalised market.

Many examples demonstrate the value of aggregating demand to get a good ideal as a client.

RECOMMENDATIONS

1) Monitor your resource and your energy use, particularly for buildings and street lighting.

- 2) If you are a local authority with a population below 100 000, get into a consortium or similar structure to do your monitoring, do your purchasing and possibly also to manage your building and lighting stock. It may be worth getting into a consortium even if you are larger than this especially for purchasing.
- 3) Consider whether you can purchase green energy, and precisely what you wish to ask for in terms of energy quality. If you are in consortium, the difference in price may be negligible and the policy and image benefits are considerable. You should, if possible, ask for "deep green" and tie your purchases to the provision of new cogeneration or renewable capacity.
- 4) Could you tie in your purchasing activity with acting as a trader for other bodies or your local population? The examples of "aggregation" in Massachusetts and Ohio suggest that this is possible. UK consortia already purchase for charities and non profit making organizations.

Case studies

Apeldoorn (NL)
CBC – Central Buying Consortium (UK)
Leicester (UK)
Massachusetts (USA)

Nijmegen (NL) Utrecht (NL) Vlissingen (NL)

How can we promote the purchase of energy services in the municipal sphere?

Capital is always limited in local authorities. Nevertheless an effective energy monitoring system will throw up many opportunities to save energy that even the most affluent local authority will find difficult to finance. If the energy savings are large enough then one can finance these through third party financing methods, including performance contracting.

Such methods were perfectly well known before the introduction of liberalisation. However the arrival of liberalisation coincides with, and is part of, a change of mentality in the public sector that has put pressure on local authorities and others to be more "business-like" in their operations. This change in behaviour has encouraged a variety of public bodies to consider out-sourcing. In general therefore there has been an expansion of such outsourcing methods at the same time as liberalisation and this offers a major market opportunity for bodies able to organise this. Such ESCOs are often linked to utilities or banks which have ready access to the capital funding required and are used to assessing risk.

However local authorities may have difficulties in using such methods. This may be because:

- Any investment using such methods counts as part of the local authority's capital allowance as in the UK (and therefore capital savings via the scheme are lost via a reduction of the authority's capital allowance),
- The authority is unfamiliar with such techniques,
- The local authority has not invested in obtaining the necessary background information to enable a call for tender to be made.

There are ways round all these problems. In particular the development of joint venture companies to take charge of the capital stock to be improved can eliminate the first constraint. The development of agencies or structures to promote external financing techniques can help circumvent the second constraint. The third constraint can be overcome by raising awareness of the advantage of energy monitoring. Government promotion of energy monitoring (in particular through the provision of grant aid) and the lobbying of local authorities by their energy units and by local environmental groups can help to change mentalities.

However it should always be remembered that energy services are provided for a profit. So an ESCO will always need a margin to cover the risk of loss – and this can be a quite considerable margin, a margin that the local authority as client will need to pay. Acceptable payback times for a project depend on interest rate, perceived risk of default and the culture of the country concerned. In CEEC countries these are often 2-3 years and at the other end of the scale, in Germany or Austria may exceed 10 years. This may limit the measures that are acceptable – for instance it is only possible to include thermo-insulation of the fabric of the building where long payback times are considered acceptable and/or the climate is severe. In general such measures are primarily practiced in Germany and Austria. Where the payback time is short – other techniques such as internal banking, direct financing etc may be more appropriate.

Local authorities considering promoting energy services for themselves and/or other players in the town should consider the following recommendations:

Lesson 4

Aggregation is also valuable when promoting energy services.

Local authorities make excellent motors for promoting energy services at a local level, but specialised structures are desirable as an intermediary.

RECOMMENDATIONS

- 1) Monitor your resource and your energy use, particularly for buildings and street lighting.
- 2) If you are a local authority with a population below 100 000, get into a consortium or similar structure to do your monitoring. Work together.
- 3) Set up a structure, perhaps linked to the above, to promote ESCOs in the local authorities in the region and to act as an intermediary to manage the process for individual projects through from conception to completion. In addition to local authorities this should involve suitable local players such as utilities, school boards, institutions of higher education, chambers of commerce etc.
- 4) If you have a utility concession, use it as a lever on the utility to ensure that the energy performance of public buildings is improved.

Case studies

Berlin (DE) Graz (AT) Heidelberg (DE) Peterborough, Ontario (CA)

Can we produce energy for our own needs?

Liberalisation is about empowering the client to choose the best deal. However he has always had the opportunity to produce his own power. The only problem before liberalisation was that he could not transport it through the public network except at the whim of the local network company. This was the kiss of death to many projects which could not therefore dispose of surplus current or transfer it from point of generation to point of consumption.

Liberalisation has changed all that. With free access to the network at published tariffs, the producer of current (or gas) can send this energy to other properties in the same ownership or sell it to another client. This makes it much easier to generate one's own energy and distribute it to tenants or other local authority owned sites. Many local authorities have taken advantage of this. For instance over 300 leisure centres in the UK have small CHP units designed to heat the water and buildings and provide electricity. Some even export surplus heat to nearby housing. Local authorities not taking advantage of this opportunity are literally squandering the taxpayer's money.

The local authority has various possibilities for generating their own electricity ranging from wind and photovoltaic to small scale CHP. The majority of power produced directly by local authorities for their own use is through small scale CHP which is often very economic. Units down to 5.5kW are now commercially available and can adapt to a variety of local authority functions. But only the largest and most dynamic local authorities are geared to invest in this directly. To develop one's own generation capacity in buildings one needs a team of experts and this is best provided by a dedicated unit. Waltham Forest and Frankfurt demonstrate successful examples of this approach. But this can be done by local authorities directly if they have the expertise and commitment, or by buying in packaged systems tailored to one's needs from specialist manufacturers.

RECOMMENDATIONS

- 1) Monitor your resource and your energy use, particularly for buildings and street lighting.
- 2) If you are a local authority with a population below 100 000, get into a consortium or similar structure to do your monitoring. Work together.
- 3) Set up a structure, perhaps linked to a consortium, to promote the use of cogeneration and renewables in local authorities in the region. It can also act as an intermediary to manage individual projects for new generation through from conception to completion. In addition to local authorities this should involve suitable local players such as utilities, school boards, institutions of higher education, chambers of commerce etc.
- 4) If you have a utility concession, use it as a lever on the utility to promote opportunities for:
 - The installation of cogeneration in public buildings and
 - The development of renewable sources on public land and facilities.

Case studies

Frankfurt am Main (DE) Waltham Forest (UK)

How can we save energy in a free market?

The first step to saving energy is to identify waste. And you identify waste by monitoring and benchmarking the local authority's own use of energy.

The reduction of energy prices accompanying liberalisation has made it harder to justify investment in energy saving. However this is only one of a number of factors affecting such investments. By making the price of energy more volatile, it has made the risk management benefits of energy saving more apparent. (When making any investment you are always making a gamble as to future conditions). The recent falls in interest rates have made longer payback periods less frightening.

We can save energy in two ways. Firstly by ensuring that our existing stock performs to its maximum. This may need significant investment in upgrading the thermal and electrical performance of the buildings and equipment owned by the local authority. Secondly by ensuring that new stock performs to the highest practical standard. The case studies demonstrate examples of both approaches.

Local authorities that have really achieved something in saving energy have pursued a policy with commitment over a long period of time. Therefore a clear and explicit policy in this field has major benefits. The factors affecting energy saving investment have not changed, all that is needed, and has always been needed, is the commitment and staff allocated to the problem (either internal or outsourced). However the perception may be that it is better to save money by competitive purchasing rather than energy saving investment. Local authorities can do both. And reducing one's energy use has a number of secondary benefits:

The lower the energy use, the less one is at risk of excessive bills due to an international crisis, price spike, manipulation of the market (remember California...).

The lower the energy use, the lower the associated emissions of CO₂ and other pollutants and so the better one's environmental performance. This can have great political benefits.

Remember that cooling can be a more important energy user than heating in hot climates. It usually uses electricity, the most expensive energy carrier, as an energy source. Thus air conditioned buildings need insulation too to prevent heat getting in. Since electricity is so expensive, the economic benefits may also be better than comparable improvements to heating systems.

Lesson 5

Liberalisation makes it imperative to ensure that the structure responsible for taking decisions to invest in energy efficient equipment also pays the energy bill.

RECOMMENDATIONS

- 1) Monitor your resource and your energy use, particularly for buildings and street lighting.
- 2) Ensure that the local authority budget holder as client benefits from any saving resulting from investment in energy saving. This may require significant internal restructuring.

3) If you are a local authority with a population below 100 000, get into a consortium or similar structure to do your monitoring. Work together.

- 4) Set up a structure, perhaps linked to the above, to promote energy saving in your local authority or local authorities in your region.
- 5) Adopt explicit policies to promote energy saving and use high energy performance standards in your new construction. Remember, it is usually cheaper to build a more efficient building than to upgrade it later.
- 6) If you have a utility concession, use it as a lever on the utility to ensure that opportunities for energy saving in public (and private) buildings are maximised.
- 7) Ensure that the local authority's responsibility as client and as energy supplier are clearly separated. One key example of this is that the ownership and management responsibility for your street lighting should lie with the local authority as client and NOT the utility which supplies the electricity.

Case studies

Jyvaskyla (FI)Montpellier (FR)Kalmar (SE)SIGEIF (FR)Malmö (SE)Stockholm (SE)

IMPROVING PERFORMANCE AS AN ENERGY PRODUCER

Local authorities have traditionally been utilities, providing a service to supply others with energy. Many local authorities still own utilities, but they have usually been corporatised into profit making companies with several or many local or regional authority owners. Others have been sold off, a process that has reached its ultimate conclusion in the Netherlands where the municipal interest in formerly municipal utilities has almost completely disappeared.

Where the municipal utility survives, however, it can provide a fine tool for administering municipal policy provided that the municipality gives sufficient direction. Municipalities should not forget this when considering "selling the family silver".

Where there is no municipal utility, the interest of the municipality in utility services is now linked more tightly to the conditions for operation (concessions). It can also take a leading role in producing its own energy or energy for those directly dependent on it (e.g. tenants) and this can lead to setting up its own mini energy network.

Has the municipal utility still a role in promoting sustainable energy production?

Municipal utilities may fill both a production and a distribution role. While many utilities buy in the majority of the energy they sell, a number produce a significant proportion of it and the municipality can therefore influence the efficiency of its system of production for instance by promoting both cogeneration and renewables. However such production functions now operate in competition and even if a municipality is owned by a local authority; there are limits to the degree that a utility can impose policies that reduce the utility's capacity to compete on the market place. However if the sales function can promote the sale of sustainable energy as a premium product; this can provide the commercial motivation for developing new production facilities (see Geneva).

In the field of heat however, there still is a monopoly. Or rather the competition is with other sources of heat such as individual gas heating. Many, if not the majority, of district heating companies are owned by municipalities in one legal form or another and so there is considerable potential for influencing the source of heat and the efficiency of its utilisation (in particular via promoting cogeneration of electricity). Examples such as Lienz demonstrate that it still is possible to promote new district heating in a liberalised context and that the sustainability of a district heating system is also a big sales attraction. Likewise Southampton has been extending its district heating system in an incremental way by means of small cogeneration capacity. Frankfurt demonstrates how such utilities can promote innovation in production via small and micro chp. Following their experiment with micro chp, the market for micro chp has burgeoned in Germany: over 5000 of the new small 5kW units had been sold by the start of 2003.

Finally the local authority can work with the local inhabitants to enable them to invest in new distributed generation capacity: Liberalisation renders this more difficult since under competition there is pressure on profits and promotional programmes are difficult to justify:

But discuss with your utility whether this is possible, and whether a promotional "feed in" price can be agreed. Remember that businesses in competition are always looking for new profitable sales lines such as new installations.

Lesson 6

There is still a role for the municipal utility.

It is a great asset when planning a programme for sustainable energy to have a municipally owned utility that can apply these policies.

RECOMMENDATIONS

- 1) If you have a municipal utility, it is worth working with the sales department to promote sustainable energy "products" so that there is a market for new sustainable capacity and therefore an incentive to invest in it.
- 2) There is still scope to promote new district heating and via this to promote the development of sustainable sources of production. Look at the possibilities in your region in cooperation with your utility. Or consider setting up a new utility.

Case studies

Lienz (AT) Kristianstad (SE)
Frankfurt am Main (DE) Trollhättan (SE)
Heidelberg (DE) Woking (UK)

These case studies are availlable at www.energie-cites.org/meels/

Can we produce energy for our own needs?

The question above was posed regarding the local authority's role as a consumer. It is also an important factor regarding its role as a producer. Indeed the question incorporates these two key issues, consumption and production, within it.

Liberalisation is about empowering the client to choose the best deal. However he has always had the opportunity to produce his own power. The only problem before liberalisation was that he could not transport it through the public network except at the whim of the local network company. This was the kiss of death to many projects which could not therefore dispose of surplus current or transfer it from point of generation to point of consumption.

Liberalisation has changed all that. With free access to the network at published tariffs, the producer of current (or gas) can send this energy to other properties in the same ownership or sell it to another client. This makes it much easier to generate one's own energy and distribute it to tenants or other local authority owned sites. Many local authorities have taken advantage of this. For instance over 300 leisure centres in the UK have small CHP units designed to heat the water and buildings and provide electricity. Some even export surplus heat to nearby housing. Local authorities not taking advantage of this opportunity are literally squandering the taxpayer's money.

The local authority has various possibilities for generating their own electricity ranging from wind, photovoltaic to small scale CHP. The majority of power produced directly by local authorities for their own use is through small scale CHP which is often very economic. Units down to 5.5kW are now commercially available and can adapt to a variety of local authority functions. But only the largest and most dynamic local authorities are geared to invest in this directly. To develop one's own generation capacity in buildings one needs a team of experts and this is best provided by a dedicated unit. Waltham Forest and Frankfurt demonstrate successful examples of this approach. However this can be done by local authorities directly if they have the expertise and commitment, or by buying in packaged systems tailored to one's needs from specialist manufacturers.

In some countries (e.g. the US), the municipality can have a utility to supply its own energy but not to supply the general public. This is the case, for instance, in San Francisco. This is an interesting halfway house that might be of interest to those local authorities that would like to take their utility back in hand but do not have the resources.

RECOMMENDATIONS

- 1) Set up a structure, in cooperation with the municipal utility if you have one, to promote the use of cogeneration and renewables in the local authorities in the region. It can also act as an intermediary to manage individual projects for new generation through from conception to completion. In addition to local authorities this should involve suitable local players such as utilities, school boards, institutions of higher education, chambers of commerce etc.
- 2) If you have a utility concession, use it as a lever on the utility to promote opportunities for:
 - The installation of cogeneration in public buildings and
 - The development of renewable sources on public land and facilities.

Case studies

Frankfurt am Main (DE) Heidelberg (DE) Leicester (UK) Waltham Forest (UK) Woking (UK)

IMPROVING PERFORMANCE AS AN ENERGY TRADER

Distribution utilities have been the traditional vehicle for selling energy direct to the final consumer. Liberalisation of the markets has opened this up, although there is still a great deal of market power in those liberalised countries that have been concentrating resources in a few large companies able to act on the international scene (e.g. Germany, Sweden and France). Sometimes these have sold off the trading role since it is seen that the profits to be made on this are limited in an open and very competitive market.

To be a successful trader, one needs to have a purchaser with a need for energy and a seller with a need to supply someone, each with a need for someone to bring them together. This is not really a local authority's stock in trade – they are primarily "service" organisations.

However energy trading also provides opportunities and a number of local authority owned projects funded on ESCO lines have taken advantage of the ability to trade to sell direct to clients, not just back to the monopoly utility. So the opportunities to resell direct to others are a vital issue in this context. For this one needs an intermediary.

CAN WE RESELL ENERGY DIRECT TO OTHERS?

If a local authority can purchase energy and can produce energy, it stands to reason that it can sell energy. However would that life were so simple. Where local authorities are banned from trading, this effectively precludes the sale of energy except to the distribution utility. Where the concession is exclusive, local authorities like others are precluded from installing their own wire networks and can only sell via the monopoly distributor. This is a major disadvantage where distribution costs are based on a fixed fee since in this case the benefits to the network of local generation cannot be taken into account.

In other cases the local authority's inhabitants are still stuck in a situation of effective monopoly since the small individual consumer has no real power in bargaining and is a price receiver rather than a price setter. In some jurisdictions, the local authority, usually in consortium, can act as an intermediary for the small weak consumer and negotiate on his behalf, a process known as aggregation. This is similar to the effect on local authorities of purchasing in consortium. In effect the local authority becomes an energy trader but without the incentive of making a profit on its trading. Aggregation is usually only effective if the client has to opt out of the aggregation rather than opt in. Utilities fight opt out aggregation tooth and nail which suggests that it must be doing the consumer some good. Nevertheless, apart from the US, the law does not permit local authorities to aggregate demand except via a commercial company specially set up for the purpose.

Nor is it possible in many countries to resell to tenants without using the public network, so limiting the financial benefit to the client. However where this is possible, it is worth considering. Reselling to tenants via a private network can allow the tenant and the local authority to benefit to a maximum from the advantage of producing current at the point of use. Typical savings for the tenant are 20%. However it involves a considerable investment and effort in management and depends greatly on having the systems in place to recharge and bill the tenants.

Aggregation of demand also gives a ready made network for proposing energy efficiency activities – indeed under US legislation the aggregator usually has the right to dispense the public goods funds collected in their area to their clients, so providing a real source of funding to undertake energy saving activities. The system has many merits. It allows the local authority to ensure that its citizens have the choice that they deserve, while providing a financial and organisational vehicle for them to meet their public service responsibilities regarding energy. It would be a very useful tool to encourage competition in countries like Germany and Austria where there is market control by large players – it could perhaps also interest the European Commission as a device for ensuring the proper operation of competition.

Lesson 7

With distributed generation technology the local authority may operate mini-utilities in order to apply sustainable energy policy.

It is no longer always hostage to the behaviour of the network operator.

RECOMMENDATIONS

- 1) If you have your own generating units, see if you can transmit the current to other consuming sites to avoid resale to the utility and to maximise the potential of the plant.
- 2) If you are in a market that appears open, but where in effect there is market control by the main players, consider whether your authority could act as a trader to open up the market to competition on price and energy quality.
- 3) If you have tenants in your properties and are installing a cogeneration unit, consider reselling both heat and electricity to the tenants if the legal system will allow it since this will maximise the potential for cogeneration on site.
- 4) Governments, think about legislating to permit opt-out aggregation. The system has many merits. It allows the local authority to ensure that its citizens have the choice that they deserve, while providing a financial and organisational vehicle for them to meet their public service responsibilities regarding energy.

Case studies

Massachusetts (USA) Waltham Forest (UK) Woking (UK)

These case studies are availlable at www.energie-cites.org/meels/

IMPROVING PERFORMANCE AS AN ENERGY DISTRIBUTOR

The local authority often has a direct interest in the local distribution network. It has to help plan for new provision; it may manage it via a municipal company; it may be able to impose conditions on the award of the right to provide this monopoly service to the public.

The local authority's position as owner of the distribution network gives it significant power to influence policy. The local authority can prevent exploitation and the use of market power, can encourage the development of sustainable generation by adapting feed-in tariffs, can support the development of cogeneration via the development of district heating networks, both at a city and single building scale, can develop a funding stream to run its own programme for promoting energy efficiency, can promote the use of renewable sources of energy etc. etc. However the arrival of liberalisation can constrain this significantly since utilities are operating as enterprises in a competitive marketplace and so will tend to limit all activities that put them at a competitive disadvantage, either real or perceived.

Many local authorities have complained that the arrival of liberalisation has turned their municipal utilities into purely commercial companies. This is particularly the case where the private sector has taken a share in a joint venture company or where the company has merged into a regional conglomerate. At the same time the most dynamic programmes we present are run primarily by local municipal distributors, many commenting that without ownership of the municipal energy company these policies could not have been developed. It should be remembered that distribution, as opposed to trading and production, is a monopoly function and so it could be relatively isolated from the pressures of commerce, should the municipality so decide.

So distributors have a vital role either as a directly owned company, or as a distribution surrogate (for instance under a system of aggregation). Local authorities also have an important regulatory role in countries where the distribution is carried out under concession from the municipality (e.g. France, Germany).

Can we use the concession as a tool to promote energy efficiency?

In many countries the local utility operates the local distribution network on concession. The concession contract is periodically renewed and this may give the opportunity to reconsider the conditions of the contract so giving the chance to impose obligations in terms of energy efficiency services, as was the case in the Heidelberg example. With the sale of municipal utilities, this form of regulation may prove to be increasingly important. Furthermore the rate of payment for the concession is frequently regulated, as in Germany, and so the only way that the local authority can wring out additional benefits from this asset is to ask for additional services as part of the concession. In effect this is a very cheap way of providing energy services and every local authority that has the chance should take the opportunity.

In the Netherlands, a new law allows the local authority to put the construction of new infrastructure out to tender. Initial trials have required high contributions from renewable energy in the local supply.

Lesson 8

The concession is a key tool for delivering sustainable energy policy.

Local authorities ignore its possibilities at their peril. It is the cheapest and simplest way for them to deliver benefits.

RECOMMENDATION

1) The concession is a valuable asset. If your local authority grants a concession to the utilities serving your area, consider what additional benefits in terms of energy efficiency services and renewables that you may be able to demand from them when the contract comes up for renewal. Remember you are granting them a monopoly, the dream of most businessmen, and for buying dreams, one pays dearly....

Case studies

Almere (NL) Hanover (DE) Heidelberg (DE) Wallonia (BE)

S THERE A ROLE FOR A MUNICIPAL DISTRIBUTION UTILITY IN A FREE MARKET?

Local authorities had been selling their utilities before liberalisation but liberalisation has increased the rate at which they have been sold. Many have been sold on to larger regional companies that are owned by a multitude of local authorities. But when one has a small share in a large company, the local connection and sense of ownership is lost and the temptation to sell up to a generous offer is very large. Many local authorities have succumbed to this temptation.

Yet local utilities fulfil local services and provide an excellent tool for a local authority to deliver local energy policy. District heating utilities are indeed usually set up by local authorities, either by concession or by joint ventures. They are still being set up – for instance in Southampton, UK, Sudbury Ontario and in our case study in Lienz, Austria. Where the market is inflexible, as it still is in Austria and Germany despite complete opening, a vertically integrated utility may be able to maintain an comprehensive programme, including elements of Least Cost Planning, provided the political will is there. (e.g, Hanover).

The distribution utility, be it electricity, gas or heat, is still a monopoly. It is therefore an ideal level to tap into funding for public goods activities such as support for energy efficiency and renewables. A local authority is likely to manage this with more enthusiasm and commitment than a private owner since it has in mind both the financial benefits and the political benefits that can be provided by the utility. Local authorities should not dispense with ownership of the utility lightly. This might be, as the great British Statesman Harold Macmillan (Lord Stockton) described it when referring to Mrs. Thatcher's policy of selling the nationalised utilities, "selling the family silver".

Some countries take the local role in delivering energy very seriously. When Danish local authorities started selling their interests in utilities (Danish utilities are controlled by municipalities or consumer cooperatives), the Government introduced legislation to recover all the capital received by the local authority, so removing all incentive to sell. Other countries like The Netherlands and Germany feel that large energy utilities will fight best in an international market, and these have encouraged or at least not hindered a process of restructuring and concentration.

Utilities still have a role to play, and since distribution is carried out at local level in response to local projects and local needs, it is likely that local authorities will continue to develop local heat distribution networks. These may in time connect and build up into larger networks, or it may be that smaller networks linked to decentralised generation are the pattern for the future. But these will be decided at local level. Furthermore local heat distribution networks offer the best opportunities to make effective use of biomass resources. Biomass fired district heating is most likely to be promoted via energy policy on the subject at regional or national level that encourage initiatives at local level, as has happened in Austria.

RECOMMENDATIONS

1) If your authority has a local distribution network, look at how it can help meet your local energy policy objectives. Remember it is a monopoly and so has the potential to provide resources for these needs.

2) If your authority has not got a heat distribution network, consider whether you could not build one up linked to small cogeneration opportunities or the development of renewable resources. Have a few ideas up your sleeve as "bottom draw schemes" (e.g. by sponsoring a feasibility study or two). Maybe at some time in the future finance will become available (e.g. via the structural funds). In a liberalised market rewards come to those who can take up opportunities rapidly.

Case studies

Hanover (DE) Kristianstad (SE) Lienz (AT) Martigny (CH) Swisspower (CH) Wallonia (BE) Woking (UK)

CAN THE MUNICIPAL DISTRIBUTOR AID CHOICE OF ENERGY SOURCE BY THE CITIZEN?

The local distribution utility can provide a range of alternative choices in terms of source of electric current. This can be "grey" electricity, "blue" electricity, "green" electricity and "deep green" electricity depending on the source (fossil, hydro, renewables and renewables supporting new investment in capacity). If the local citizen is to be provided with a full choice, the utility has to have the incentive to market it. Where the market is fully open in law and open in practice (as in the UK), then suppliers will come along from either the big utilities or specialist suppliers (e.g. Ecotricity). Where the practical opening is more cosmetic and the market is subject to the market power of the big utilities, (as in Germany and Austria), the market is unlikely to throw up many private suppliers and the local utility has a real role in promoting the choice of more sustainable energy sources.

The consideration of choice of energy source is even stronger with heat distribution. Biomass and geothermal energy are most economic when delivered via a distribution network and local utilities fulfil a vital role in providing this choice to local residents as in the Kristianstad and Lienz examples. Similar considerations apply to cogeneration, although here the size of the network can be really small with the rapid development in micro CHP technology. To date we have not discovered any local heat utility that sells heat from different sources separately. In principle, as for electricity, the energy could be sold according to its original source and this could finance new capacity for biomass or fuel cell cogeneration etc.

RECOMMENDATIONS

- 1) If you have a municipal utility, put pressure on it to give local clients the opportunity to choose electricity from a source of their choosing.
- 2) If you have a heat utility, encourage them to investigate alternative sources of heat. Why not try to set up different heat products depending on the origin of the heat to finance new investment in sustainable technology?

Case studies

Geneve (CH) Kristianstad (SE) Lienz (AT) Massachusetts (USA)

These case studies are availlable at www.energie-cites.org/meels/

IMPROVING PERFORMANCE IN DELIVERING SUSTAINABLE ENERGY POLICIES AT LOCAL LEVEL

Local authorities know their areas. They have political obligations in terms of environmental performance and the environment is one of the major political concerns of the citizen in most western societies. They are the ideal vector for delivering environmental policy at local level. This includes energy policy since energy delivery is the source of the most intractable of environmental problems, climate change.

However energy policy is centralised in many countries. Local authorities have traditionally seen their role in energy policy as related to the local authority's role as an energy provider and in this role, energy efficiency is likely to be considered of secondary significance. Yet the arrival of liberalisation has placed greater importance on the local authority's role as local policymaker.

What tools can we use to promote energy efficiency?

Depending on the legal regime in each country, the local authority has an impact on many decisions with an impact on energy use. These include the energy performance and location of new buildings, the monitoring of consumer products on sale, local environmental policies, the provision of local services, some of which such as street lighting and water pumping are very energy intensive, the use of energy in its own stock, the consideration of energy source in energy purchasing policy etc. There are many different regulatory tools that can be used. Local planning is almost universally a local authority responsibility, but other tools, such as approval of construction standards, are often determined at central level. Energy is likely to be forgotten unless there is a local framework of policy to guide this.

Therefore it is important to develop local energy policies, and the volatility of energy prices linked to liberalisation only emphasises the value of having policies minimising the risk to the citizen. The sudden peaks in electricity prices in Norway in 2002-3 due to low rainfall and the lack of capital investment following liberalisation indicates one of the dangers of a liberalised market.

Consumer protection legislation and legislation on energy standards are going to play an ever increasing role. In some countries this is a local authority responsibility and local consumer protection departments may have considerable freedom. It can be a very useful tool for improving local performance.

Lesson 9

The local authority role as a planner and regulator is important in the context of liberalised markets.

RECOMMENDATIONS

1) If your local authority is responsible for consumer protection, carry out a study of the energy "products" on the market and publicise your findings. Surveys of the energy efficiency of equipment can also be of great interest to the consumer. If there is no national rating system for equipment, consider encouraging shops to display the rating systems used by other countries.

2) There is an advantage in working via semi-independent organisations to promote energy policy since they can provide an independent and innovative approach. Energy agencies can provide just such a vehicle, but other more wide ranging local organisations can also fulfil this role. Consider setting up a local independent structure to promote effective action at local level.

Case studies

Apeldoorn (NL) Hanover (DE) Leicester (UK) SIGEIF (FR)

What is the role for the municipality as local energy policy maker in a free market?

A number of local authorities have developed local energy policies. Some of these are to promote local supply solutions, for instance by establishing a utility in Lienz. However energy planning is also important for those utilities that do not have an energy utility. In this case the emphasis will be more on general energy policies on the demand side, as for example in Pleasanton. In Poland and a number of Scandinavian countries local authorities are obliged to prepare local energy plans. Elsewhere energy policy is incorporated in a more general policy framework, such as spatial plans or urban master plans as at Linz or via corporate environment plans. In the UK the policies devised to meet the guidelines of the Home Energy Conservation Act 1995 form a significant framework for local energy planning.

The general impact of liberalisation is to put more emphasis on using plans as a regulatory tool to apply policy. These plans coordinate the activities of others and programme financial aid (e.g. Trollhattan) rather than simply managing the local authority's own direct investment. It therefore follows that regulatory plans are likely to increase in importance.

When regional authorities have been given the power to regulate energy issues, they have taken up the challenge. Thus for instance the Scottish Assembly has been leading the UK's central government on the matter of the energy performance standards of new buildings, while Wallonia has shown an independent and innovative line in developing a policy framework for energy, giving particular attention to ensuring effective management structures for intercommunal energy distributors.

Lesson 10

When negotiating with other players, a clear strategy is important.

Rewards come to those who determine a clear and consistent strategy which promotes energy efficiency and sustainable energy over a long period of time.

RECOMMENDATIONS

- 1) If you haven't already got one, prepare an energy policy in cooperation with other local players. This should cover the environmental and public service issues related to energy, and how the problems you identify are going to be solved.
- 2) Governments should reflect on whether it might not be more effective to devolve responsibility for energy regulation to regional authorities, in particular matters concerning energy efficiency and network issues.

Case studies

Almere (NL) Leicester (UK) Linz (AT) Wallonia (BE) Pleasanton (USA) Trollhättan (SE) Vlissingen (NL)

These case studies are availlable at www.energie-cites.org/meels/

IMPROVING PERFORMANCE AS A FACILITATOR AND AWARENESS RAISER

Action to raise awareness on energy issues is essentially a local level activity, although it is greatly promoted if it is carried out as part of campaigns at national level. Local authorities are therefore essential players in any awareness raising programme. They can both act to provide straight advice, and also to provide incentives, usually by applying national level grant aid programmes at local level. Local authorities have credibility which is vital in awareness raising. However they are inflexible administrative structures and many local authorities have acted via local semi-independent bodies (associations, energy agencies etc.), a solution that has proved its worth. Action can both be designed to promote action by the man in the street with his own resources, or designed to help him raise the resources through energy services, via grants, third part financing, etc.

The role of provider of energy advice is likely to fall on the public or voluntary sector in a free market, or else be totally forgotten. The utility generally has no interest in doing this unless someone pays it to do it or it leads to gaining new sales or it limits the loss of market share. In effect the utility is only interested in energy advice as a sales tool. By contrast local authorities, governments and voluntary bodies often have deeply held principles and political objectives that push action in this field.

How can we promote the purchase of energy services in the wider community?

Energy services are rather a nebulous concept for the man in the street. The margins are relatively small, the payback period is long, and the transaction costs can be dissuasive. This is why in general energy performance contracting is limited to large projects, or aggregated programmes.

However this is why local authorities have an interest. They have political interest in supporting third party financing on energy saving investment. This enables them to meet political goals in terms of climate protection and employment creation. One thing that is clear is that energy services are typically a product for industry. If one wants them to be applied more widely they need support to stimulate the investment necessary in getting a programme under way. Since programmes occur at local level, the programmes need to be promoted at that level, and the municipality, or even better a municipality supported structure, is the ideal vehicle. Municipalities have experience in bringing together local interests to achieve a common policy objective – the techniques for doing this are their stock in trade.

So there is value in encouraging local authorities to set up local programmes to promote energy performance contracting both within local authorities or among the wider general public. Indeed the experience of Canada suggests that action in the public building stock can act to build up a performance contracting industry and that this can then lead to interest in the private sector.

If one wants to approach the individual householder, all the more important to ensure that there is a structure in place to promote this. The transaction costs that are dissuasive for

the large building are prohibitive for the individual householder or small commercial customer. So there is a need to finance improvements via incentives, again involving as many of the players as possible. The experience of Newham and San Francisco presents a good model of what can be done with resources, cooperation and commitment.

Lesson 11

Delivering energy efficiency is a specialised topic which needs long term commitment, as far as possible free from the swings and roundabouts of the political cycle.

The establishment of free standing specialist structures seems a valuable route which has been taken by many local authorities.

RECOMMENDATIONS

- 1) If this does not already exist, consider setting up a structure, either in house or out sourced, to support external financing of energy efficiency improvements in cooperation with other players and adjoining local authorities. The benefits of scale apply to specialist services like this.
- 2) Consider the possibility of combining the role of promoting energy services in larger buildings with services to the small householder or commercial customer.

Case studies

Frankfurt am Main (DE) Newham (UK) Peterborough (CA) San Francisco (USA)

These case studies are availlable at www.energie-cites.org/meels/

SHOULD THE MUNICIPALITY TAKE OVER THE ROLE OF AWARENESS RAISER AND INCENTIVE PROVIDER IN THE FREE MARKET AND IF SO, WHERE DOES THE MONEY COME FROM?

These questions are closely interrelated.

Energy efficiency obligations are placed on utilities in regulated liberalised markets. But delivering these obligations can be difficult. One of the most effective ways to deliver energy efficiency services to the local customers is via local authorities or local authority sponsored non-profit structures which spend their time communicating with their citizens. This represents, in broad terms, the essential role of local energy agencies or similar structures.

In those countries where energy efficiency obligations are financed by a levy which is then delivered to projects chosen by the utilities themselves, there has been general consensus that there is a problem. The motivations are wrong – the pressure to promote the utility's own product at the expense of competing ones (electricity, gas etc) is just too strong in a competitive market. The situation is better where the utility is a multi energy utility (gas, electricity, heat) since the loss of an electricity customer usually represents the gain of a gas customer for example, but the problem is not completely removed. Utilities of all sorts exist to supply energy.

One good effect of liberalisation is a trend to isolate local authorities from a pecuniary interest in the sale of energy. Without this interest it is easier to exercise their environmental obligations. But to deliver energy savings local authorities must have resources and Governments should think clearly about where they channel the public goods charges on energy sales. Local authorities, if necessary via suitable non-profit organisations, can act as good intermediaries for this service. In the UK, for instance, HECA funds are delivered primarily via local authorities through a competitive bidding system. This has delivered a wide ranging local service to deliver government policy on energy efficiency at the household level.

The case studies all demonstrate structures that use energy efficiency levies to deliver energy savings in the small consumer sector. It is this sector which the local authority is best placed to serve since the local authority is the sum of its citizens. The local authority is also interested in political impact and such programmes get to a large number of people.

Lesson 12

It is important to ensure that the public goods resources are administered independently by bodies that do not have a direct interest in their application.

Local authorities, among other locally based non-profit making structures, represent suitable bodies through which to channel these funds to the smaller consumer in preference to utility structures.

RECOMMENDATIONS

1) Governments should try to ensure the independence of the mechanism for delivering energy efficiency "products" to the small consumer. Remember that local authorities and other local players may often make the best channel to deliver these funds.

- 2) Local authorities, deliver the funds that you get in cooperation with other local players. This will make the delivery that much more effective.
- 3) Choose a mechanism that gets you in contact with the client. Both San Francisco and Newham have undertaken a survey to make contact with the potential recipients of aid. Potential customers had often simply not thought of the opportunities that are possible with the incentives available.
- 4) Often it is desirable to set up an external or in-house unit specially to deal with this service. All the case studies worked through specialist structures. This is not by chance.

Case studies

Leicester (UK) Massachusetts (USA) Newham (UK) San Francisco (USA)

TWELVE KEY LESSONS FROM THESE GUIDELINES

Lesson 1

Local authorities can promote energy efficiency.

Even if the liberalisation of energy markets seems to make it more difficult, it also creates opportunities for the committed local authority to implement and promote energy efficiency measures.

Trollhättan has continued with its highly sustainable energy policies for many years. The liberalisation of energy markets indeed offered new opportunities.

Lesson 2

Knowledge is a key asset.

When negotiating to purchase energy, carry out energy efficiency improvements or protect the local citizens, it is vital to have sufficient knowledge. Monitoring is vital. Most local authorities do not have the resources themselves and liberalisation makes it even more vital for local authorities to cooperate in delivering energy efficiency. Energy consumption information is a commercial asset in a free market and is therefore difficult to obtain without regulatory action.

Specialist structures are needed to monitor energy use in local authority property. **Leicester** has an energy unit in their Energy Centre that keeps track of energy use in all local authority property and is responsible for applying new energy saving investments.

Lesson 3

The economies of scale work well in a liberalised market.

Many examples demonstrate the value of aggregating demand to get a good deal as a client. The **Central Buying Consortium**, like many other British consortia, has aggregated demand on behalf of its member local authorities and provided a specialist buying service. **Vlissingen** has obtained similar benefits for 22 Dutch local authorities.

Cape Cod Compact in Massachusetts and **NOPEC** in Northern Ohio have aggregated demand on behalf of their residents and obtained favourable rates and more sustainable power supplies on their behalf. Others are examining future possibilities, for instance **SIGEIF** in France.

Lesson 4

Aggregation is also valuable when promoting energy services.

Local authorities make excellent motors for promoting energy services at a local level, but specialised structures are desirable as an intermediary.

Berlin and **Graz** Energy Agencies have issued calls for tender for energy performance contracts for pools of buildings. This produced economies of scale and better value. Better value means more efficient buildings can be afforded. This principle has been taken to its ultimate conclusion in **Peterborough**, Canada, where a whole town is to be upgraded using energy performance contracts. In **Frankfurt** the local authority has aggregated demand for small CHP units to create a sufficient momentum for the market to take off. **SIGEIF** has aggregated demand and this has enabled it to have the resources to provide energy audits to member municipalities.

Lesson 5

Liberalisation makes it imperative to ensure that the structure responsible for taking decisions to invest in energy efficient equipment also pays the energy bill.

Conversely the opposite situation can be found with utility owned public lighting, where the body responsible for investment decisions has no interest in reducing energy use. This is to be avoided at all costs and may a require significant restructuring of public services.

Jyväskylä restructured its energy service in preparation for liberalisation, separating the energy works into a separate energy company, taking back in hand the public lighting stock formerly managed directly by the energy works, and introducing a clear contract framework designating responsibilities. Within four years three quarters of the street lights had been replaced by more efficient ones. Similar benefits were found in **Stockholm** following liberalisation. The abandonment by the municipal energy service of the free supply of energy for local authority functions resulted in true costs being appreciated.

Martigny reorganised its public utilities into service companies, separating monopoly from competitive functions. This was possible even in a municipal utility serving a town of only 20 000 inhabitants. This restructuring created new business opportunities which offer scope for new efficiency services.

Lesson 6

There is still a role for the municipal utility.

It is a great asset when planning a programme for sustainable energy to have a municipally owned utility that can apply these policies. The utility can act through its role in offering choice in the quality of energy supplied, as with **Geneva** and **Swisspower**. Utilities can still offer a programme for sustainable energy if the political will is there (e.g. **Hanover**, **Heidelberg**). New utilities can still be successfully established, particularly for district heating. Excellent examples are found at **Lienz** and **Woking**.

However caution should be taken lest the business objectives of the producer and distributor override those of planner, regulator and awareness raiser. Clear dividing lines should be drawn between the administration and utility structures and any local authority income from the utility should be independent of energy use.

Lesson 7

With distributed generation technology the local authority may operate mini-utilities in order to apply sustainable energy policy.

These can supply a building or group of buildings. It is no longer always hostage to the behaviour of the network operator. Both **Waltham Forest** and **Woking** provide excellent examples of such practices where the network has either been reconstructed, taken in hand or leased from the utility. There are legal barriers to this in some countries that might be worth re-examining.

Lesson 8

The concession is a key tool for delivering sustainable energy policy.

Local authorities ignore its possibilities at their peril. It is the cheapest and simplest way for them to deliver benefits and can cost them nothing at all to implement.

Conditions attached to the concession can require the provision of a whole array of sustainable energy benefits. **Heidelberg** has shown over a number of years the possibilities for using this tool to provide energy services. **Almere** has demonstrated the possibilities that derive from putting the

provision of new infrastructure out to tender. **Montpellier** has been trying to follow suit in France for a number of years.

Lesson 9

The local authority role as a planner and regulator is important in the context of liberalised markets.

This can affect routine control of development, the design of new urban communities or the "regeneration" of existing ones. **Apeldoorn, Linz** (right), **Malmö, Utrecht** and **Vlissingen** all represent examples of this approach.

Lesson 10

When negotiating with other players, a clear strategy is important.

Rewards come to those who determine a clear and consistent strategy which promotes energy efficiency and sustainable energy over a long period of time.

Hanover, Heidelberg, Kalmar, Kristianstad, Leicester, Linz, Malmö, Pleasanton, Trollhättan and Vlissingen are all examples of towns where long term commitment to sustainable energy policies, either on a whole town scale or for a particular neighbourhood, has paid dividends. "Faint heart never won fair maiden". You need to tell others loud and clear what is your policy if others are to take it seriously and act accordingly.

Lesson 11

Delivering energy efficiency is a specialised topic which needs long term commitment, as far as possible free from the swings and roundabouts of the political cycle.

The establishment of free standing specialist structures seems a valuable route which has been taken by many. These have to work in cooperation with many partners for effective service delivery. Local authorities are particularly suitable for approaching dispersed small consumers where transaction costs make it difficult to promote energy efficiency on a commercial basis.

Many local authorities have established specialist structures, either in-house or as a free-standing unit. Examples include **Cape Cod Compact**, Pro Klima, **Hanover**, Kliba **Heidelberg**, **Berlin**, **Heidelbergn**, **Graz** and **Leicester** Energy Agencies, **Newham** Warm Zone, CESC, **Berkeley**, **Waltham Forest**, **Woking**. Existing intercommunal structures such as **SIGEIF** can readily take on this role.

Lesson 12

It is important to ensure that public goods resources are administered independently by bodies that do not have a direct interest in their application.

Local authorities, among other locally based non-profit making structures, represent suitable bodies through which to channel these funds to the smaller consumer in preference to utility structures.

The example of **Berkeley**, where for one year the market was opened up to local authorities, demonstrates the benefits of channelling such funds via local authorities. In **Newham** and other Warm Zones, great care has been taken in developing a structure that involves the utility purse holders but avoids them holding too great a direct interest in the outcome. However, the evaluators have still identified utility market posturing as a continuing issue.

WHAT SHOULD I DO?

If you are an elected member or work in a local authority

Look at the lessons and identify the issues that concern your authority. Look at the case studies in more detail. Ask yourself could my authority apply this directly or in modified form in our context?

If you are an elected member or work for Government

Look at the lessons and identify the issues that concern your country. Look at the case studies in more detail. Ask yourself could my country apply this directly or in modified form in our context? What changes in the law might be required and what resources are needed from government.

If you are a member of the public

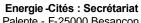
Look at the lessons and identify the issues that concern your country or local area. Look at the case studies in more detail. Ask yourself could my elected representatives apply this directly or in modified form in our context?

Then convince your politicians that this was their idea, putting an emphasis on all the jobs that will be created.

Then all it needs is their imagination and commitment.

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